

# REL-MR-120AC/21-21/MS - Single relay



2987969

<https://www.phoenixcontact.com/pc/products/2987969>

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Plug-in miniature relay, with power contact, 2 changeover contacts, test button, mechanical switching position indicator, status LED, coil voltage 120 V AC

## Your advantages

- With detectable manual operation
- Mechanical switch position indicator
- DC types with integrated freewheeling diode
- Switching current of up to 16 A
- Integrated status LED

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2987969             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Product key                          | CK6195              |
| Catalog page                         | Page 292 (C-5-2019) |
| GTIN                                 | 4046356480970       |
| Weight per piece (including packing) | 18.43 g             |
| Weight per piece (excluding packing) | 17.48 g             |
| Customs tariff number                | 85364900            |
| Country of origin                    | CN                  |

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## Technical data

### Product properties

|                         |                           |
|-------------------------|---------------------------|
| Product type            | Single relay              |
| Mechanical service life | 5x 10 <sup>6</sup> cycles |

### Electrical properties

|                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| Service life electrical                         | see diagram                                |
| Maximum power dissipation for nominal condition | 0.84 W                                     |
| Test voltage (Winding/contact)                  | 5 kV AC (50 Hz, 1 min., winding/contact)   |
| Test voltage (Contact/contact)                  | 2.5 kV AC (50 Hz, 1 min., contact/contact) |

### Input data

#### Coil side

|                                         |                                              |
|-----------------------------------------|----------------------------------------------|
| Nominal input voltage U <sub>N</sub>    | 120 V AC                                     |
| Input voltage range                     | 93.6 V AC ... 174 V AC                       |
| Mains frequency                         | 50/60 Hz                                     |
| Drive and function                      | monostable                                   |
| Drive (polarity)                        | non-polarized                                |
| Typical input current at U <sub>N</sub> | 7 mA                                         |
| Typical response time                   | 3 ms ... 12 ms (depending on phase relation) |
| Typical release time range              | 2 ms ... 8 ms (depending on phase relation)  |

### Output data

#### Switching

|                                       |                                |
|---------------------------------------|--------------------------------|
| Contact switching type                | 2 changeover contacts          |
| Type of switch contact                | Single contact                 |
| Contact material                      | AgNi                           |
| Maximum switching voltage             | 250 V AC/DC                    |
| Minimum switching voltage             | 12 V (at 10 mA)                |
| Limiting continuous current           | 8 A                            |
| Maximum inrush current                | 16 A (20 ms)                   |
| Min. switching current                | 10 mA (at 12 V)                |
| Interrupting rating (ohmic load) max. | 2000 VA (for 250 V AC)         |
| Switching capacity                    | 1 A (at 24 V, DC13)            |
|                                       | 1.5 A (at 24 V, AC15)          |
|                                       | 1.5 A (at 120 V, AC15)         |
|                                       | 1.5 A (at 240 V, AC15)         |
| Motor load according to UL 508        | 1/4 HP, 120 V AC (N/O contact) |
|                                       | 1/2 HP, 240 V AC (N/O contact) |
|                                       | 1/4 HP, 120 V AC (N/C contact) |
|                                       | 1/3 HP, 240 V AC (N/C contact) |

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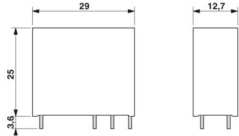
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## Connection data

|                   |                          |
|-------------------|--------------------------|
| Connection method | Plug / solder connection |
|-------------------|--------------------------|

## Dimensions

|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 12.7 mm                                                                            |
| Height              | 29 mm                                                                              |
| Depth               | 25 mm                                                                              |

## Environmental and real-life conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient conditions                      |                  |
| Ambient temperature (operation)         | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

|                    |                            |
|--------------------|----------------------------|
| Corrosive gas test |                            |
| Identification     | ISA-S71.04. G3 Harsh Group |
|                    | EN 60068-2-60              |

## Standards and regulations

|                       |              |
|-----------------------|--------------|
| Standards/regulations | EN 61810-1   |
|                       | VDE 0435-201 |
|                       | EN 50178     |

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